

Notice of Allowability

Application No.

09/771,403

Examiner

Trenton J. Roche

Applicant(s)

HUNDT ET AL.

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 26 October 2004.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 26 January 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this Examiner's amendment was given in a telephone interview with Mr. Tuan V. Ngo on 9 June 2005. The Examiner's amendment was required to obviate any possible 101 rejection regarding claim 6.

The application has been amended as follows:

Per claim 6, "embodying" at line 1 has been changed to – storing –.

Allowable Subject Matter and Examiner's Statement of Reason(s) for Allowance

2. Claims 1-16 are allowed.
3. The following is an examiner's statement of reasons for allowance:

The closest found prior art of record, "Poor Man's Watchpoints" by Copperman et al., hereafter PMW, taken alone or in combination, fails to teach or reasonably suggest a method for allowing debugging capability in code instrumentation in accordance with independent claim 1. Specifically, PMW does not teach at least *providing an instrumentation breakpoint in the block of original code; running the block of original code including the instrumentation breakpoint until a breakpoint is reached; determining whether the breakpoint is the instrumentation breakpoint; and, if so, then generating the block of instrumented code; running the block of instrumented code until a debugging breakpoint is reached; and performing debugging functions on*

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the block of instrumented code at the reach debugging breakpoint. (claim 1). Similar limitations are recited in independent claim 6.

Instead, PMW et al. is directed to a system for allowing a user to implement watchpoints on a system. These watchpoints are utilized to allow a user to identify potential memory location related bugs in software code. The watchpoints are implemented by instrumenting program code with calls to a subroutine known as `_do_watch`. This subroutine would then give control to the debugger if the accessed location is being watched, thereby enabling a user to perform debugging. However, PMW does not explicitly disclose at least determining whether the breakpoint is the instrumentation breakpoint, and if so, then generating the block of instrumented code, and further, running said generated block of instrumented code until a debugging breakpoint is reach, and performing debugging functions on the block of instrumented code at said debugging breakpoint. Rather, in PMW, the original code is instrumented, and no further generation of instrumented code occurs. Note pages 6-11 of the applicant's Remarks.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trenton J. Roche whose telephone number is (571) 272-3733. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Trenton J Roche
Examiner
Art Unit 2193

TJR

Kakali Chaki
KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
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